

AMENDMENTS TO THE CLAIMS, COMPLETE LISTING OF CLAIMS
IN ASCENDING ORDER WITH STATUS INDICATOR

Please amend the following claims as indicated.

1. (Canceled).
2. (Currently Amended) The plasma treatment apparatus as set forth in claim+ 27, wherein said insulating member is configured in the form of a plate.
3. (Currently Amended) The plasma treatment apparatus as set forth in claim+ 27, wherein said ~~electrodes~~ electrode plates are embedded in said insulating member.
4. (Withdrawn - Currently Amended) The plasma treatment apparatus as set forth in claim+ 27, wherein said ~~electrodes~~ electrode plates are exposed to the interiors of said through holes of said insulating member.
5. (Currently Amended) The plasma treatment apparatus as set forth in claim+ 27, wherein said ~~electrodes~~ electrode plates are not exposed to the interiors of said through holes of said insulating member.
6. (Canceled).
7. (Currently Amended) The plasma treatment apparatus as set forth in claim+ 27, wherein said ~~electrodes~~ electrode plates are disposed such that electric flux lines are generated in said through holes in a direction parallel to a flow direction of the plasma generation gas.
8. (Currently Amended) The plasma treatment apparatus as set forth in claim+ 27, wherein an interval between said ~~electrodes~~ electrode plates is in a range of 0.01 to 5 mm.

9. (Currently Amended) The plasma treatment apparatus as set forth in claim-~~4~~ 27, wherein the openings of said through holes are formed in a circular shape with a diameter of 0.01 to 15 mm.

10. (Withdrawn - Currently Amended) The plasma treatment apparatus as set forth in claim-~~4~~ 27, wherein the openings of said through holes are formed in a slit shape with a short-side dimension of 0.01 to 15 mm.

11. (Withdrawn - Currently Amended) The plasma treatment apparatus as set forth in claim-~~4~~ 27, wherein said ~~electrodes~~ electrode plates are formed in layers in said insulating member, and ~~have apertures at positions corresponding to said through holes, and wherein there is no deficit portion between adjacent apertures in~~ each of said ~~electrodes~~ electrode plates.

12. (Withdrawn - Currently Amended) The plasma treatment apparatus as set forth in claim-~~4~~ 27, wherein ~~said electrodes are formed in layers to face said insulating member, and an outer peripheral portion of one of said~~ electrodes electrode plates located at a downstream side in a gas-flow direction projects outward relative to the outer peripheral portion of the other electrode plate located at an upstream side in the gas-flow direction.

13. (Currently Amended) The plasma treatment apparatus as set forth in claim-~~4~~ 27, wherein said insulating member is made of a ceramic.

14. (Currently Amended) The plasma treatment apparatus as set forth in claim-~~4~~ 27, wherein said insulating member is made of alumina.

15. (Currently Amended) The plasma treatment apparatus as set forth in claim-~~4~~ 27, comprising an electric power source for applying a pulse-like voltage with a rest period between ~~said electrodes~~ electrode plates.

16. (Currently Amended) The plasma treatment apparatus as set forth in claim ~~4~~ 27, comprising an electric power source for applying a voltage with a frequency of 1 Hz to 200 kHz between said ~~electrodes~~ electrode plates.

17. (Currently Amended) The plasma treatment apparatus as set forth in claim ~~4~~ 27, comprising an electric power source for applying a pulse-like voltage with a duty ratio of 0.01 to 80% between said ~~electrodes~~ electrode plates.

18. (Canceled).

19. (Currently Amended) The plasma treatment apparatus as set forth in claim ~~4~~ 27, ~~comprising wherein said~~ gas supply means ~~configured to supply~~ supplies a gas containing at least one of a noble gas, nitrogen, oxygen and air or a mixed gas of two or more of them into said reaction vessel as the plasma generation gas.

20. (Withdrawn - Currently Amended) The plasma treatment apparatus as set forth in claim ~~4~~ 27, comprising a radiator for cooling said insulating member.

21. (Withdrawn - Currently Amended) The plasma treatment apparatus as set forth in claim ~~4~~ 27, comprising a temperature regulator configured to control temperature of said insulating member at a temperature where secondary electrons are easily emitted.

22. (Withdrawn - Currently Amended) The plasma treatment apparatus as set forth in claim ~~4~~ 27, comprising gas uniforming means configured to supply the plasma generation gas into all of said through holes at a uniform flow rate.

23. (Canceled).

24. (Canceled).

25. (Withdrawn - Currently Amended) A plasma treatment method using the plasma treatment apparatus as set forth in claim ~~1~~ 27, said method comprising the steps of:

developing discharges in said through holes by applying a voltage ~~to~~ between said ~~electrodes~~ electrode plates, while flowing the plasma generation gas from one ends to the other ends of said through holes, thereby generating plasmas in said through holes to activate the plasma generation gas; and

spraying the activated plasma generation gas from the other ends of said through holes on a surface of the object.

26. (Withdrawn - Original) The plasma treatment method as set forth in claim 25, wherein the object comprises a glass material for flat panel display, printed wiring board, and a resin film.

27. (Currently Amended) A plasma treatment apparatus comprising:

a pair of electrode plates having a plurality of through holes;

an insulating ~~plate~~ member having a plurality of through holes, which is disposed between said electrode plates such that positions of the through holes of said electrode plates correspond to the positions of the through holes of said insulating ~~plate~~ member;

gas supply means configured to supply a plasma generation gas into a plurality of discharge spaces formed by the through holes of said electrode plates and the through holes of said insulating ~~plate~~ member; and

voltage applying means configured to apply a voltage between said electrode plates to generate plasmas of the plasma generation gas simultaneously in said discharge spaces.

28. (Canceled).

29. (Currently Amended) The plasma treatment apparatus as set forth in claim-~~7~~ 27, wherein ~~said electrodes are neutral-grounded~~ grounding is formed between a first electric power source connected to one of said electrode plates, and a second electric power source connected to the other electrode plate.